

**WHAT IS CLAIMED IS:**

1           1.    A telecommunications system within a Code  
2    Division Multiple Access 2000 (CDMA2000) network, said  
3    CDMA2000 network having a base station serving a  
4    sector, said base station further having a queue  
5    therein for storing data packets associated with data  
6    sessions involving one or more mobile terminals whose  
7    respective data rate controls (DRC) are pointed towards  
8    said sector, said queue having a size, said  
9    telecommunications system comprising:  
10           an overhead message handler adapted to receive  
11    said queue size and compare said queue size with a  
12    predefined threshold;  
13           means for selecting one or more of said mobile  
14    terminals when said queue size exceeds said predefined  
15    threshold; and  
16           means for transmitting a respective message to  
17    said selected one or more mobile terminals, said  
18    message instructing said selected one or more mobile  
19    terminals to not point their said respective DRCs  
20    towards said sector.

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1           2.    The telecommunications system of Claim 1,  
2    further comprising:

3           a base station controller connected with said base  
4    station, said overhead message handler being within  
5    said base station controller.

1           3.    The telecommunications system of Claim 1,  
2    wherein said message is a QuickConfig message.

1           4.    The telecommunications system of Claim 3,  
2    wherein each said QuickConfig message includes a DRC  
3    Lock field, said DRC Lock field having a bit set to 0  
4    indicating that said DRC of said respective selected  
5    mobile terminal is not valid.

1           5.    The telecommunications system of Claim 4,  
2    wherein each said QuickConfig message includes a  
3    Reserved field, said Reserved field having one or more  
4    bits set to a MACIndex associated with said respective  
5    selected mobile terminal.

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1           6.    The telecommunications system of Claim 1,  
2           wherein said means for selecting comprises mobile  
3           terminal selection logic adapted to analyze one or more  
4           factors to select said selected one or more mobile  
5           terminals to discontinue using said sector for said  
6           respective data sessions.

1           7.    The telecommunications system of Claim 1,  
2           wherein said selected one or more mobile terminals set  
3           their DRC cover index to 0 in response to receipt of  
4           said message.

1           8.    The telecommunications system of Claim 1,  
2           wherein said selected one or more mobile terminals  
3           perform virtual handoffs to one or more adjacent  
4           sectors of said base station by pointing their  
5           respective DRCs towards the adjacent sectors.

1           9.   The telecommunications system of Claim 1,  
2   wherein said base station is a high data rate (HDR)  
3   base station having a data only carrier capable of  
4   providing only data service to said one or more mobile  
5   terminals.

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1           10. A telecommunications system for load sharing  
2           within a Code Division Multiple Access 2000 (CDMA2000)  
3           network, said telecommunications system comprising:

4           a base station serving a sector, said base station  
5           further having a queue therein for storing data packets  
6           associated with data sessions involving one or more  
7           mobile terminals whose respective data rate controls  
8           (DRCs) are pointed towards said sector, said queue  
9           having a size; and

10          a base station controller storing a predefined  
11          threshold for said sector therein, said base station  
12          controller being adapted to receive said queue size  
13          from said base station and compare said queue size with  
14          a predefined threshold, said base station controller  
15          being further adapted to select one or more of said  
16          mobile terminals when said queue size exceeds said  
17          predefined threshold and transmit a respective message  
18          to said selected one or more mobile terminals  
19          instructing said selected one or more mobile terminals  
20          to not point their respective DRCs towards said sector.

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1           11. The telecommunications system of Claim 10,  
2           wherein said message is a QuickConfig message.

1           12. The telecommunications system of Claim 11,  
2           wherein each said QuickConfig message includes a DRC  
3           Lock field, said DRC Lock field having a bit set to 0  
4           indicating that said DRC of said respective selected  
5           mobile terminal is not valid.

1           13. The telecommunications system of Claim 12,  
2           wherein each said QuickConfig message includes a  
3           Reserved field, said Reserved field having one or more  
4           bits set to a MACIndex associated with said respective  
5           selected mobile terminal.

1           14. The telecommunications system of Claim 10,  
2           wherein said selected one or more mobile terminals set  
3           their DRC cover index to 0 in response to receipt of  
4           said message.

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1           15. The telecommunications system of Claim 10,  
2           wherein said selected one or more mobile terminals  
3           perform virtual handoffs to one or more adjacent  
4           sectors of said base station by pointing their  
5           respective DRCs towards the adjacent sectors.

1           16. The telecommunications system of Claim 10,  
2           wherein said base station is a high data rate (HDR)  
3           base station having a data only carrier capable of  
4           providing only data service to said one or more mobile  
5           terminals.

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1           17. A Base Station Controller within a Code  
2           Division Multiple Access 2000 (CDMA2000) network, said  
3           Base Station Controller comprising:

4           a predefined threshold for a sector associated  
5           with said Base Station Controller, said sector having  
6           one or more mobile terminals therein each pointing  
7           their respective Data Rate Control (DRC) towards said  
8           sector for a respective data session, said sector  
9           having a queue associated therewith, said queue storing  
10          data packets associated with said data sessions, said  
11          queue having a size;

12          an overhead message handler adapted to receive  
13          said queue size and compare said queue size with said  
14          predefined threshold; and

15          selection logic adapted to select one or more of  
16          said mobile terminals when said queue size exceeds said  
17          predefined threshold and cause said Base Station  
18          Controller to transmit a respective message to said  
19          selected one or more mobile terminals, said message  
20          instructing said selected one or more mobile terminals  
21          to not point their respective DRCs towards said sector.

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22           18. The Base Station Controller of Claim 17,  
23 wherein said message is a QuickConfig message.

1           19. The Base Station Controller of Claim 18,  
2 wherein each said QuickConfig message includes a DRC  
3 Lock field, said DRC Lock field having a bit set to 0  
4 indicating that said DRC of said respective selected  
5 mobile terminal is not valid.

1           20. The Base Station Controller of Claim 19,  
2 wherein each said QuickConfig message includes a  
3 Reserved field, said Reserved field having one or more  
4 bits set to a MACIndex associated with said respective  
5 selected mobile terminal.

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1           21. A method for load sharing within a Code  
2    Division Multiple Access 2000 (CDMA2000) network, said  
3    method comprising:

4 storing a predefined threshold for a sector of  
5 said CDMA2000 network, said sector having a queue  
6 associated therewith for storing data packets  
7 associated with data sessions involving one or more  
8 mobile terminals whose respective data rate controls  
9 (DRCs) are pointed towards said sector, said queue  
10 having a size;

11           comparing said queue size with said predefined  
12   threshold; and

13           if said queue size exceeds said predefined  
14   threshold, transmitting a respective message to  
15   selected ones of said one or more of said mobile  
16   terminals instructing said selected one or more mobile  
17   terminals to not point their respective DRCs towards  
18   said sector.

1           22. The method of Claim 21, wherein each said  
2 message is a QuickConfig message, said step of  
3 transmitting further comprising:

4           setting a bit of a DRC Lock field of said  
5 QuickConfig message to 0 indicating that said DRC of  
6 said respective selected mobile terminal is not valid.

1           23. The method of Claim 22, wherein said step of  
2 transmitting further comprises;

3           setting one or more bits of a Reserved field of  
4 each said QuickConfig message to a MACIndex associated  
5 with said respective selected mobile terminal.

1           24. The method of Claim 21, further comprising:

2           setting the DRC cover index of each of said  
3 selected one or more mobile terminals to 0 in response  
4 to receipt of said message.

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1           25. The method of Claim 21, further comprising:  
2           performing virtual handoffs by said selected one  
3           or more mobile terminals to one or more adjacent  
4           sectors by pointing their respective DRCs towards said  
5           one or more adjacent sectors.

1           26. The method of Claim 21, wherein said step of  
2           transmitting further comprises:  
3           analyzing one or more factors to select said  
4           selected one or more mobile terminals to discontinue  
5           using said sector for said respective data sessions.

FOOTNOTES